SERVICE MANUAL

AUTOMATIC DIRECT-DRIVE TURNTABLE

SANSUI FR-D35

(Silver & Black Model)

Sansui

SANSUI ELECTRIC CO., LTD.

SPECIFICATIONS

Type	Two-speed direct-driven
Speeds	33-1/3, 45 rpm
Platter	Aluminum alloy die cast 315 mm (12-13/32") diameter
Motor	DC brushless servo-motor
Wow and flutter	0.025 % (W.R.M.S.)
S/N	Better than 60 dB (IEC-B)
Rumble	Better than 72 dB (DIN-B)
Tonearm	
Tonearm length	220 mm (8-11/16")
Overhang	17.5 mm (3/4")
Applicable cartridge weight	4 to 9 g
Dimensions	440 mm (17-5/16") W 119 mm (4-11/16") H 370 mm (14-9/16") D
Weight	4.8 kg (10.6 lbs.) net 5.8 kg (12.8 lbs.) packed
Power consumption	9 W

- The power voltage is adjusted to the one of the area where you bought the unit.

Specifications of the cartridge (applicable only to the units with cartridge)

Model SC-50

Type	Induced magnet
Frequency response	10 ~ 20,000 Hz
Output voltage	3.0 mV per channel (1,000 Hz, 35.4 mm/sec)
Load impedance	47 kΩ
Tracking force	2.5 g
Stylus	0.6 mil, diamond spherical (SN-50)

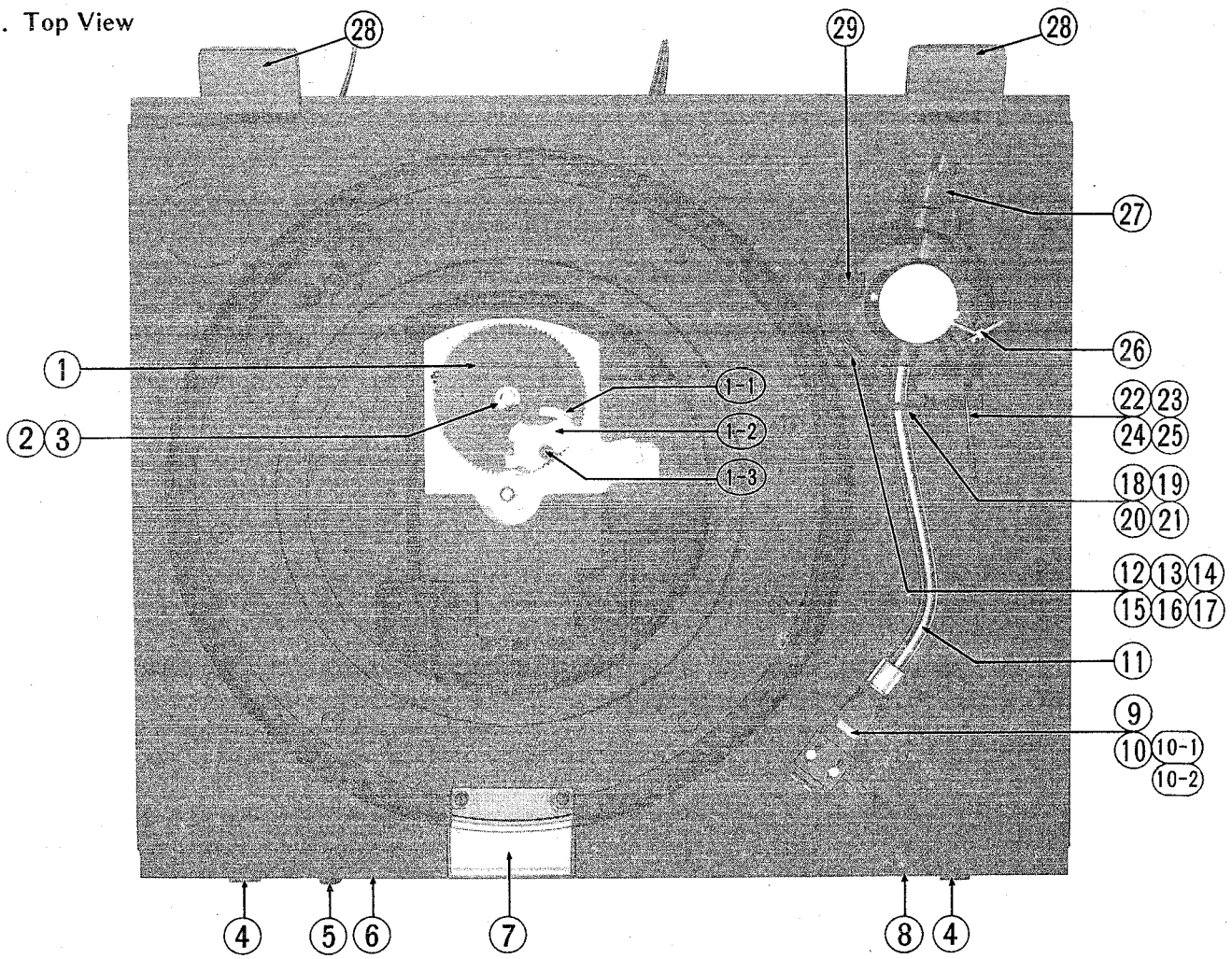
Model SV-101

Type	Dual magnet
Frequency response	10 ~ 20,000 Hz
Output voltage	2.5 mV per channel (1,000 Hz, 35.4 mm/sec)
Load impedance	47 kΩ
Tracking force	2 g
Stylus	0.6 mil, diamond spherical (SN-101)

- **Design and specifications subject to change without notice for improvements.**
- **In order to simplify the explanation, illustrations may sometime differ from the originals.**

1. PARTS LOCATION & PARTS LIST

1-1. Top View



Parts List <Top View>

Parts No.	StockNo.	Description
1	13017200	Main Gear Ass'y
1-1	————	Lower Trip
1-2	————	Upper Trip
1-3	51822900	CS Type Washer 3φ
2	00489400	E Ring 5φ
3	————	Polyslider Washer 6φ x 9.4 x 1.0
4	13037000	Push Switch Knob <Silver Model>
	13039700	Push Switch Knob <Black Model>
5	13037100	Knob, pitch control <Silver Model>
	13037200	Knob, pitch control <Black Model>
6	13035000	Plate (L) <Silver Model>
	13035200	Plate (L) <Black Model>
7	13037700	Strobo Cover
8	13040900	Plate (R) <Silver Model>
	13041000	Plate (R) <Black Model>
9	13043100	Head Shell

Parts No.	Stock No.	Description
10	13010800	Cartridge Ass'y, SV-101 XX, UL, EU, BS, AS
	43103700	Carrtidge Ass'y, SC-50B UL
10-1	13010900	Stylus, SN-101 XX, UL, EU, BS, AS
	49402300	Stylus, SN-50 UL
10-2	————	Screw Ass'y for Cartridge
	————	XX, UL, EU, BS, AS
	————	Screw Ass'y for Cattridge UL
11	13069500	Tone Arm Ass'y
12	13038900	Lifter Plate
13	13035600	Spring, 5.3φ x 10 mm (C)
14	13035700	Spring, 9.3φ x 14 mm (E)
15	00466500	P Type Washer 3φ x 10
16	13011600	Elevation Chip
17	13038000	B Type Tapping Screw M3 x 16 (Type 2)

Parts No.	Stock No.	Description
18	13005300	Arm Rest
19	13013100	Fook, arm rest
20	13013200	Flat Fillister Screw M1.3 x 8, fook
21	00454500	B Type Tapping Screw M3 x 6, arm rest
22	13013500	Lifter Knob
23	13039100	Lifter Lever Ass'y
24	13039200	Lifter Lever Plate
25	00457600	WT Type Tapping Screw M3 x 10, lifter lever
26	13043200	IFC Ass'y
27	13069600	Main Weight
28	13044600	Auto Hinge
29	50624800	Cup

●Note 1:

As to U.S., C.S.A., B.S., ES, A.S. and xx marked in the Parts Lists, note the followings:

U.S., C.S.A. . . Parts used in the unit which is applicable to the U.S. and Canada under industrial standards.

B.S. . . . . Parts used in the unit which is applicable to British under industrial standards.

E.U. . . . . Parts used in the unit which is applicable to Sweden, Denmark, Norway, Finland, West Germany, and Switzerland under industrial standards.

A.S. . . . . Parts used in the unit which is applicable to Australia under industrial standards.

XX . . . . . Parts used in the unit which is applicable to other countries excepting mentioned above.

* In this parts list, those parts with no above mark in the place of Description are all the same as XX marked parts.

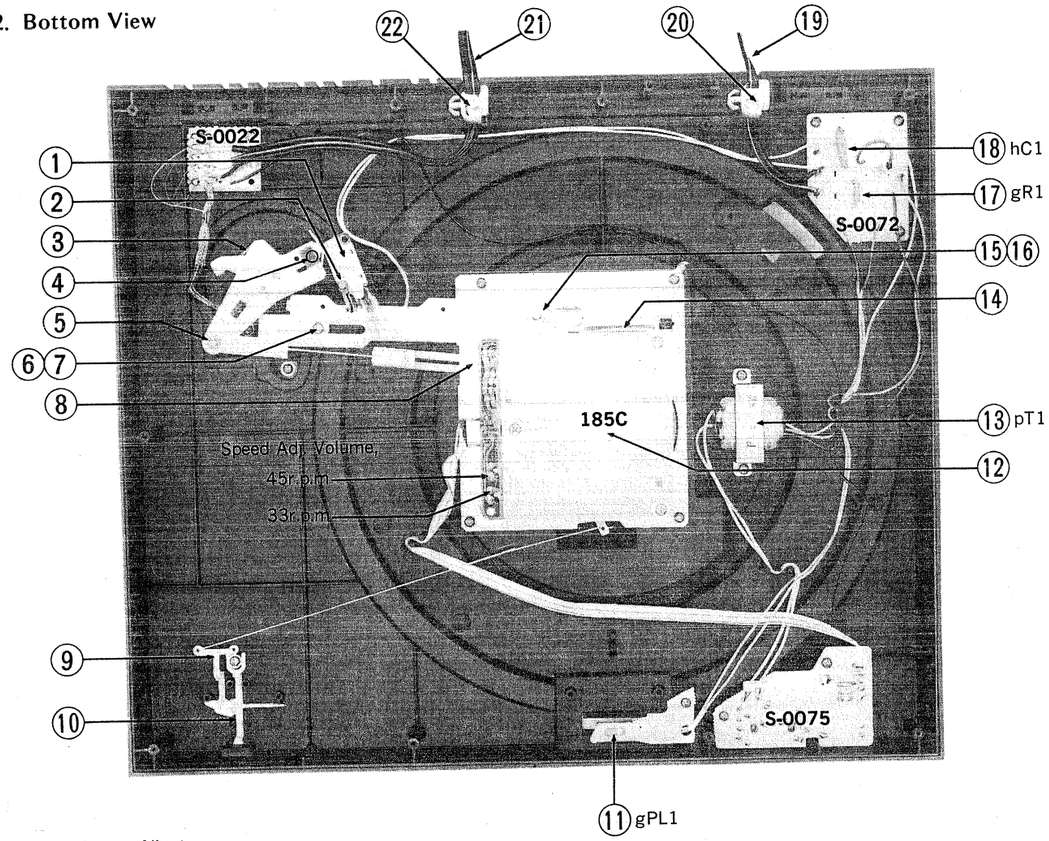
●Note 2:

Please note that this unit, FR-D35, includes a cartridge or not depending on the cabinet color and the unit sold in specific area shown in the above description.

Model	Cabinet Color	Cartridge	Indication of Carton Case
XX, UL, EU, BS, AS	Silver	With Cartridge (SV-101 for UL) (SC-50 for XX, EU, BS, AS)	————
XX, UL, EU, BS, AS	Black	With Cartridge (SV-101 for UL) (SC-50 for XX, EU, BS, AS)	Black
XX, UL, CSA, EU, BS	Silver	Without Cartridge	E
XX, UL, CSA, EU, BS	Black	Without Cartridge	Black, E

Cartridge, Stylus, Stylus Cover, and Screw Ass'y are not included in the unit stamped E on carton case.

1-2. Bottom View



Parts List <Bottom View>

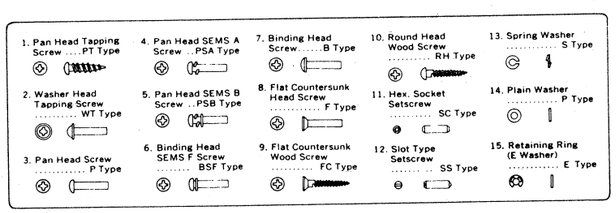
Parts No.	Stock No.	Description
1	11602500	Micro Switch
2	13038100	Screw, micro switch
3	69034400	Spring, PU plate
4	13038000	P Type Tapping Screw M3 x 16 (Type 2)
5	51822900	CS Type Washer 3φ
6	13038200	Screw, slide arm
7	———	P Type Washer 5.6φ x 11.7 x 0.7
8	13051900	Steel Ball 5φ
9	13038400	SC Lever (2)
10	13038300	SC Lever (1)

Parts No.	Stock No.	Description
11	07264800	Neon Lamp
12	13050900	DD Motor (Motor, Control Circuit Board)
13	15002401	Power Transformer XX
	15002402	Power Transformer UL, CS
	15002405	Power Transformer EU, BS, AS
14	69034300	Spring, slide arm
15	00489300	E Ring 4φ
16	———	P Type Washer 5.3φ x 10 x 1.0
17(gR1)	00179900	12kΩ 1W N.I.R. XX, UL, CS
	00182400	33kΩ 1W N.I.R. EU, BS, AS

Parts No.	Stock No.	Description
18(hC1)	00386000	0.01μF 150V E.C. XX, BS, AS
	08302600	0.01μF 400V E.C. EU, BS
	08302200	0.01μF 125V E.C. UL, CS
19	38004700	Power Cord XX, UL, CS
	38004500	Power Cord EU
	38004300	Power Cord BS
	07204200	Power Cord AS
20	07254700	Strain Relief, power cord XX, UL, CS
	39104900	Strain Relief, power cord EU, BS, AS
21	38103610	Output Cord
22	07254700	Strain Relief, output cord

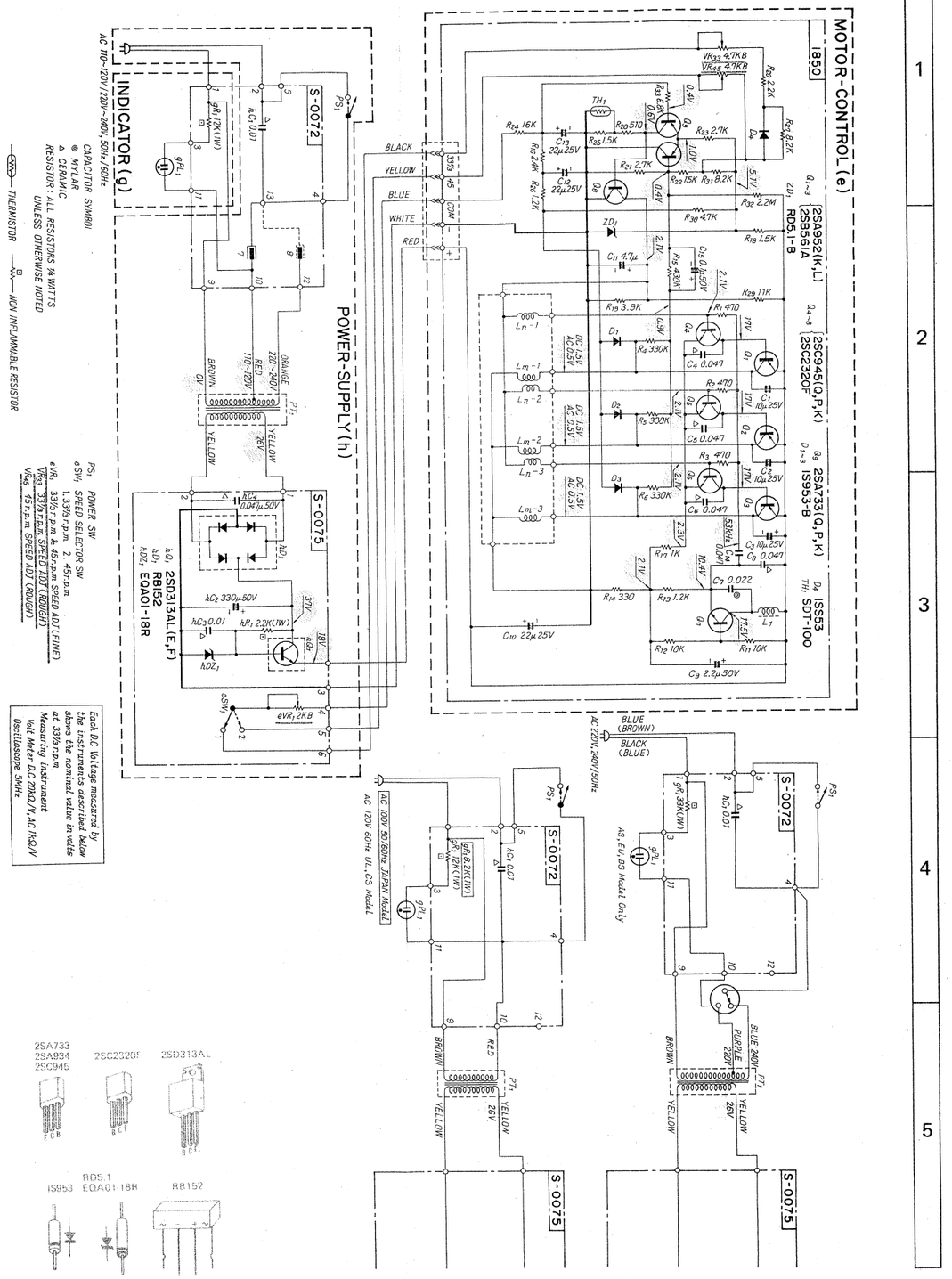
●Note 3:

Parts without Stock No. are not supplied.


1. Pan Head Tapping Screw ..... PT Type
2. Washer Head Tapping Screw ..... WT Type
3. Pan Head Screw ..... P Type
4. Pan Head SEMS A Screw ..... PSA Type
5. Pan Head SEMS B Screw ..... PSB Type
6. Binding Head SEMS F Screw ..... BSF Type
7. Binding Head Screw ..... B Type
8. Flat Countersunk Head Screw ..... F Type
9. Flat Countersunk Wood Screw ..... FC Type
10. Round Head Wood Screw ..... RH Type
11. Hex. Socket Setscrew ..... SC Type
12. Slot Type Setscrew ..... SS Type
13. Spring Washer ..... S Type
14. Plain Washer ..... P Type
15. Retaining Ring (E Washer) ..... E Type

2. SCHEMATIC DIAGRAM

- Design and specifications subject to change without notice for improvement.
- La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
- Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

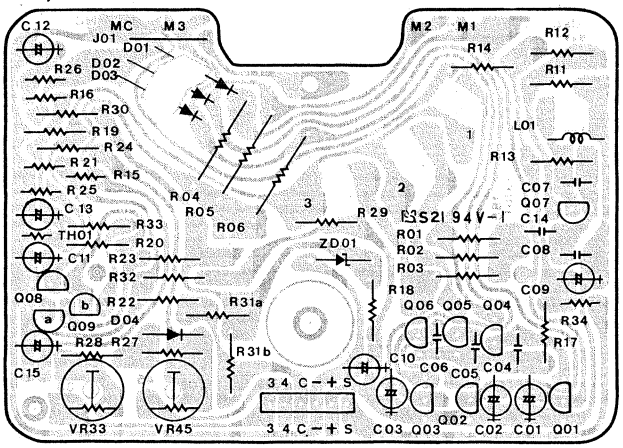


3. PARTS LIST OF CIRCUIT BOARD

•Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the new Common Parts List for capacitors & resistors.

3-1. 185C Motor Control Circuit Board

Component Side



Note: The circuit board 185C & S0075 are not supplied as the assembled, the individual parts on the circuit board, however, are provided for orders.

Parts List <185C>

Parts No.	Stock No.	Description
•Transistor		
Q01 ~ 03	03012201	2SA934 Q
Q04 ~ 08	03059501 ~ 3	2SC945 P, Q, K
Q09	03006800 ~ 2	2SA733 P, Q, K
•Diode		
D01 ~ 03	03110500	1S953
D04	03110500	1S953
•Zener Diode		
ZD01	03166300	RD5.1E-B
•Thermistor		
TH01	03201400	SDT-100
VR33, 45	10351100	4.7kΩ (B) Volume, speed adj.

3-2. S0075 Pitch Control Circuit Board

Parts List <S0075>

Parts No.	Stock No.	Description
eVR1	07247200	2kΩ (B) Volume, speed adj.
eSW1	11319500, 1	Push Switch, speed selector
•Transistor		
rQ1	03083902, 3	2SD313AL E, F
•Diode		
rD1	03117000	RB-152
•Zener Diode		
rDZ1	03160200	EQA01-18R
rR1	00181300	2.2kΩ 1W N.I.R.
rC2	00283100	330μF 50V E.C.

•Abbreviations

C.R.	Carbon Resistor	E.L.	Low Leak Electrolytic Capacitor
S.R.	Solid Resistor	E.B.	Bi-Polar Electrolytic Capacitor
Ce.R.	Cement Resistor	E.BL.	Low Leak Bi-Polar Electrolytic Capacitor
M.R.	Metal Film Resistor	Ta.C.	Tantalum Capacitor
F.R.	Fusing Resistor	F.C.	Film Capacitor
N.I.R.	Non-Inflammable Resistor	M.P.	Metalized Paper Capacitor
C.C.	Ceramic Capacitor	P.C.	Polystyrene Capacitor
C.T.	Ceramic Capacitor, Temperature Compensation	G.C.	Gimmic Capacitor
E.C.	Electrolytic Capacitor		

4. ADJUSTMENTS

4-1. Adjustment of the Auto Return

1) The adjusting screw (under the rubber lid of arm base) is one to adjust the position of Auto Return when stylus reaches lead-out groove.
2) Make adjustment of the screw in such away that stylus lifts up automatically around the middle way of lead-out groove. Namely turn the adjusting screw clockwise is for leading and counter-clockwise is for lagging.
3) After adjusting the screw properly, check its operation a few times.

4-2. Adjustment of the Clearance between PU Plate and Micro Switch

After replacing the micro switch, adjust the clearance between PU plate and micro switch to be approximately 0.3 mm at the tonearm on the arm rest by the clearance adjusting cam in Fig. 4-1.

4-3. Adjustment of Cartridge Mounting Position

Adjust the cartridge mounting position as shown in Fig. 4-2.

Fig. 4-1

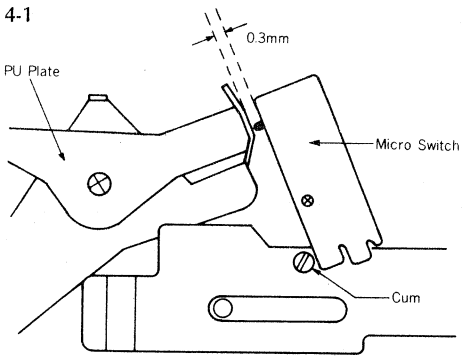
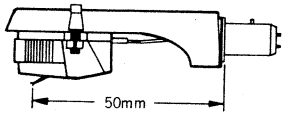
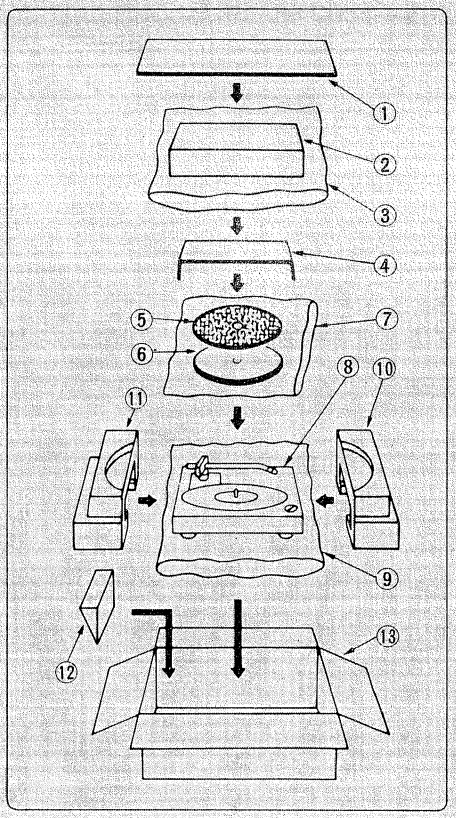


Fig. 4-2



5. PACKING LIST

Parts No.	Stock No.	Description
1	13040300	Protector Board, Upper
2	70122210	Dust Cover
3	91122500	Polyethylene Bag for Dust Cover
4	13035800	Protector Board, platter
5	13036600	Rubber Mat XX, CS, EU, BS, AS
	13036700	Rubber Mat UL
6	13036200	Platter
7	91166000	Polyethylene Bag for Platter
8	———	Turntable Unit
9	91122710	Polyethylene Bag for Turntable Unit
10	13935400	Styrofoam Packing, front
11	13035500	Styrofoam Packing, rear
12	13040200	Accessory Box
13	13042600	Carton Case <Silver Model>
	13052000	Carton Case <Black Model>



6. ACCESSORY PARTS LIST

	Stock No.	Description
	43103700	Cartridge Ass'y, SC-50B XX, UL, EU, BS, AS
	13010800	Cartridge Ass'y, SV-101 UL
	13012300	EP Adaptor
	13044600	Auto Hinge
	07643200	Operating Instructions

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Printed in Japan (906030M)